

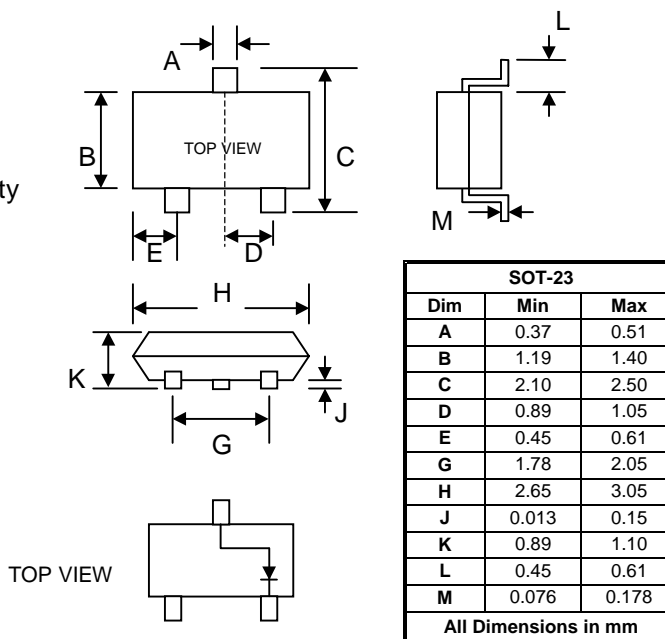
## SURFACE MOUNT FAST SWITCHING DIODE

### Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O

### Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: JF



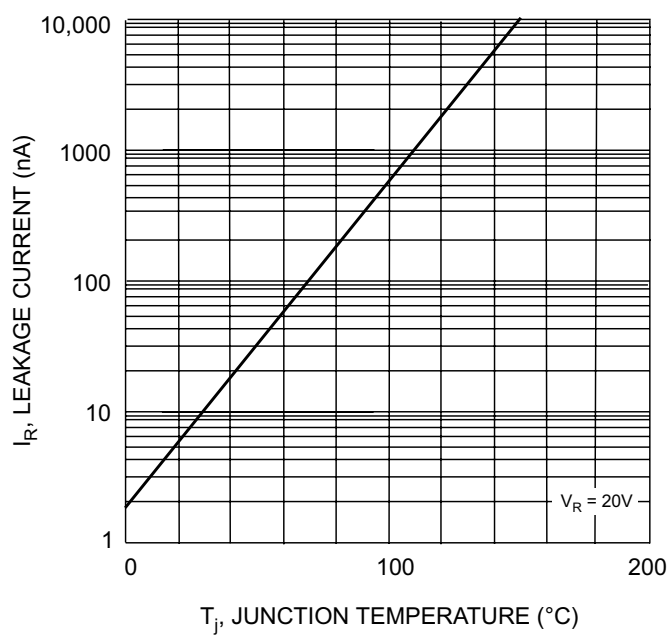
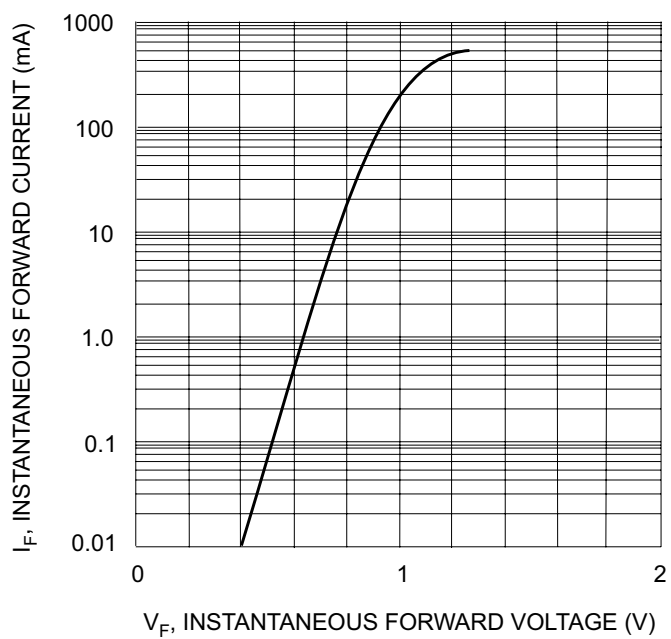
### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	75	V
Forward Continuous Current (Note 1)	I <sub>F</sub>	300	mA
Average Rectified Output Current (Note 1)	I <sub>O</sub>	150	mA
Peak Forward Surge Current (Note 1) @ t < 1.0μs	I <sub>FSM</sub>	2.0	A
Power Dissipation (Note 1)	P <sub>d</sub>	350	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	357	K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

### Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage	V <sub>F</sub>	—	0.855 1.0	V	@ I <sub>F</sub> = 10mA @ I <sub>F</sub> = 50mA
Reverse Leakage Current	I <sub>R</sub>	—	2.5	μA	@ V <sub>R</sub> = 75V
Junction Capacitance	C <sub>j</sub>	—	2.0	pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	6.0	nS	I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>RR</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.



## ORDERING INFORMATION

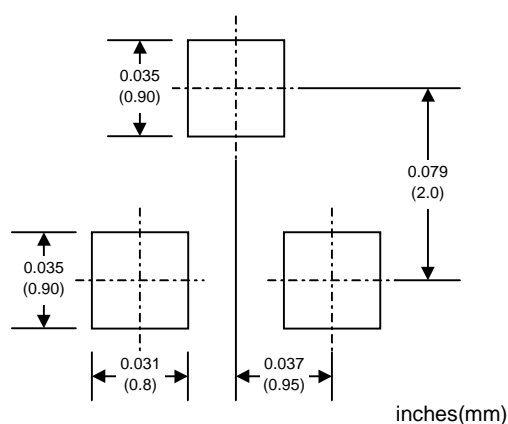
Product No. ♦	Package Type	Shipping Quantity
<b>BAL99-T1</b>	SOT-23	3000/Tape & Reel
BAL99-T3	SOT-23	10000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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